V. ENVIRONMENTAL IMPACT ANALYSIS
C. CULTURAL RESOURCES

This section summarizes information regarding cultural resources contained in two technical reports regarding the PacifiCenter project. The first report is entitled "Archaeological Resources Assessment for the Boeing C-1 Facility, Long Beach, California," prepared by Statistical Research, Inc., and is presented in full in Appendix F to this EIR. The second is entitled "Historic Resources Technical Report, PacifiCenter—Long Beach, California," prepared by PCR Services Corporation and Science Applications International Corporation, a complete copy of which is presented in Appendix G to this EIR.

1. ENVIRONMENTAL SETTING

a. Existing Conditions

As recently as January 2003, Boeing facilities on the PacifiCenter site included a total of over five million square feet of floor area, most of which was occupied with manufacturing uses, though large occupancies of office and R&D space also occurred.[84] As previously indicated, a total of 4,651,234 square feet of this area located on approximately 213 acres within the large eastern portion of the PacifiCenter site is permitted for demolition in order to provide for a separate soils and groundwater remediation program mandated by Cleanup and Abatement Order 95-048 issued by the Regional Water Quality Control Board, Los Angeles Region. This Order is evaluated as a related project within this EIR pursuant to CEQA. The Boeing Enclave which comprises the remaining 380,000 square feet of space within the project site is expected to continue to operate as phases of the project are built out. Buildings within the Boeing Enclave will ultimately be demolished, if Boeing determines they are no longer necessary for its operations, as either part of the separate ongoing remediation program or as part of the proposed project. For purposes of providing a conservative analysis, it is assumed that demolition of the Boeing Enclave will occur as part of the proposed project.

[84] *The indicated amount of pre-existing development excludes approximately one million square feet of floor area associated with trailers, modular buildings, and other miscellaneous structures historically present on the project site.*

Although some buildings within a portion of the site have been removed as part of ongoing remediation activities, much of the pre-existing development continues to consist of large corrugated metal industrial buildings and airplane hangars. These low- to mid-rise industrial and R&D buildings are located throughout much of the project site and generally range between 30 to 90 feet in height and from 2,000 up to approximately 500,000 square feet in floor area. In addition, the site included a nine-story former executive office building along Lakewood Boulevard. Nearly all of the remainder of the project site is paved with asphalt or concrete or includes graded areas as a result of recent remediation activities. Surface parking is concentrated within the southeast corner of the site, with primary vehicular access provided off Lakewood Boulevard at Conant Street. Secondary access and surface parking is provided on the west side of the site from Cover Street. In addition, a 48-acre area known as the Boeing Enclave, located within the western portion of the project site adjacent to the Long Beach Airport, is currently used for final testing associated with Boeing's C-17 and 717 aircraft including engine run-up activities.

b. Historic Context

(1) Douglas Aircraft Company

The Douglas Aircraft Company was initially established by Donald W. Douglas (1892-1981) and millionaire sportsman David R. Davis (1894-1972) as the Davis-Douglas Company in July 1920, in Santa Monica. The company's first order was from Davis, who put up $40,000 to build an airplane to make the first-ever nonstop, coast-to-coast flight. Within a few months, the "Cloudster" rolled off the factory line.[85] Although the plane was the first to successfully lift a payload greater than its own weight (9,600 lbs.), it failed to complete its inaugural cross-country trip. Upset, Davis sold his interest in the company to Douglas. Meanwhile, Douglas had already landed his first military contract. Douglas incorporated as The Douglas Company in July 1921, and produced the DT-1 (Douglas Torpedo, First), followed by the DT-2 production version for the Navy.[86]

In 1922, Douglas began production of Douglas World Cruisers, based on the DT-2 design. Two cruisers, the "Chicago" and the "New Orleans," the first planes to fly around the world, propelled Douglas to the forefront of the aviation industry. This accomplishment also provided the basis for the O-2 Observation Biplane, which was produced in 1925 for the Army Air Corps, and later sold as a civilian aircraft. Douglas reincorporated as the

[85] *The Boeing Company, Boeing Historical Archives (Long Beach, CA), 1998.*

[86] *The Boeing Company, "McDonnell-Douglas Company History." http://www.boeing.com/company offices/ history/mdc, 2001.*

Douglas Aircraft Company in 1928 and constructed a new headquarters facility adjacent to the Santa Monica Airport's Clover Field.

The Douglas Aircraft Company survived the stock market crash of 1929 and the ensuing Great Depression largely by producing military aircraft. Douglas developed a prototype amphibian aircraft called the "Sinbad," a luxury "air yacht," in 1930. Although it failed in the civilian market, it led to the successful production in 1931 of the "Dolphin," used throughout the 1930s by the U.S. Army, Navy and Coast Guard, and later, by civilian industrialists. Douglas also produced two gull-winged monoplanes, including an observation aircraft and a bomber. His line of torpedo bombers also evolved, securing steady commissions and national renown. A watershed moment came in 1932, with the prototype DC-1, followed by the production version, the DC-2. With it, Douglas launched into the manufacture of transports for both civilian and military use. But it was the DC-3 that propelled Douglas's company into prominence.

(2) Aviation in Southern California

The German attack on Poland in 1939 made clear to the American aircraft industry the importance of air superiority in combat and that a major defense buildup was needed. In June of 1940, following Germany's invasion of France, President Roosevelt called for a quadrupling of the current U.S. airplane production, which was in turn estimated to triple the need for factory space. Production targets were increased in 1942 and doubled in 1943. As a consequence, government and private industry collaborated in the unprecedented design and implementation of a program for facilities to accommodate increased manufacturing capability. This national defense program became known as the great "Arsenal of Democracy."[87] The government agency responsible for funding industrial development was called the Defense Plant Corporation. Private industry contributed in equal measure, motivated by nationalism as well as significant tax breaks and anticipation of increased wartime profits.[88] Douglas Aircraft Company's Long Beach, California, assembly plant was built in direct response to this wartime initiative, not far from the company's existing plants in Santa Monica and El Segundo.

The concentration of aviation, and later aerospace, facilities in southern California had its origins in the collaboration of government and the private sector. But a number of other circumstances converged to support the growth of the industry in the region.

[87] *Douglas Aircraft Company, Historical Resume—Long Beach Plant, Long Beach, CA, 1950.*

[88] *Albrecht, Donald, World War II and the American Dream: How Wartime Building Changed a Nation (Washington, DC: National Building Museum; Cambridge, MA: The MIT Press), 1995.*

Southern California offered several competitive advantages over the Midwest and East Coast. It offered abundant, affordable open space both for the construction of plants geared to large-scale production and for flight-testing, as well as a climate conducive to year-round production and flight operations. The area's tremendous population growth (pre- as well as postwar) ensured a large workforce to staff the plants. The region was home to a number of educational institutions performing research in support of defense and related fields, such as the California Institute of Technology (Caltech). As southern California's aircraft industry grew, the growth of related support industries, providing machine tools, parts, and electronics, gradually contributed to the establishment of an integrated industry of formerly independent companies.

By 1941, it was reported that southern California was "America's Number 1 Arsenal."[89] Sixty percent of all American-manufactured planes were made within the 150-mile-long region between Burbank and San Diego.[90] That infrastructure, coupled with infrastructure supporting regional oil and gas production, water supply transport, and the presence of vast agricultural acreage, all of national economic significance, was thought to render coastal southern California particularly vulnerable to attack from overseas or even invasion during wartime.[91]

(3) The Douglas Aircraft Company in Long Beach: World War II

Douglas's Long Beach plant, planned as a dedicated defense plant for aircraft assembly, was the first facility of its kind in President Roosevelt's national "Arsenal of Democracy."[92] This plant was conceived, designed and under construction before the United States officially joined World War II in 1941. Douglas employed only 8,000 workers before expanding to Long Beach, but was nonetheless the industry leader for manufacture of civilian aircraft. Douglas accepted responsibility for a major contribution to buildup of the aircraft arsenal.

Groundbreaking for the new Douglas plant in Long Beach took place on November 22, 1940, just one year before the bombing of Pearl Harbor. The plant was planned to occupy a 200-acre parcel adjacent to the Long Beach Municipal Airport. The presence of one of the only airports in the region, together with the abundant open space

[89] *Flying and Popular Aviation Magazine, "Blackout Factory." (New York, NY), June 1941, p. 86.*

[90] *Ibid.*

[91] *Ibid.*

[92] *Douglas Aircraft Company, Historical Resume — Long Beach Plant, 1950.*

surrounding it and the proximity to Douglas's El Segundo plant, played important roles in attracting Douglas to that location.

The Long Beach plant was built for the assembly of attack bombers and military transports, and at its completion was the largest privately owned and operated such plant in the world.[93] It encompassed 10 factory buildings, an office building and a hangar. Operations were decentralized at least in part to disperse workers in separate buildings in the event of bombing. The first phase of construction was the rail line for quick and efficient delivery of aircraft parts from around the country.[94] This rail line extended east from the nearby Union Pacific Railroad track along Cover Street directly into the Douglas plant. Construction of the first 1.4 million square feet took only seven months. Douglas's Long Beach facility went into production on October 17, 1941. Immediate expansion of the factory to double its size commenced the same day. Long Beach Municipal Airport, one of the largest airfields in the country at that time, simultaneously underwent improvements that included a new terminal with tower and camouflaging.

In contrast to many bomber assembly plants and other military bases subsequently built in the South and Midwest, Douglas's Long Beach plant location was believed by the Army to be ill advised. It was perilously close to the coast, amid a known concentration of other aircraft plants in the region, and was thus considered vulnerable to air raids. Accordingly, elaborate precautions were taken at the Army's insistence to disguise the Long Beach facility from aerial view with paint, props and vegetation. The roofs of buildings were designed to simulate the roadways and homes of a suburban neighborhood. The Douglas plant in Santa Monica was even more carefully camouflaged beneath a virtual landscape of canvas houses and false trees.

Due to its sensitive location and its role in achieving air superiority for the U.S., the functional design of the Long Beach plant incorporated a number of defenses against the possibility of air raids. Jointly designed by the Los Angeles based architectural firm of Taylor and Taylor and the Department of the Army engineers, and reportedly modeled on its counterparts in England, it was built as the nation's first sealed, windowless "blackout" facility. Advance press touted it as "invisible." All buildings featured entryways and receiving bays that were only accessible through double, light-concealing "trap" doors (light-proof doors), in anticipation of 24-hour operations. It was also the nation's first fully air-conditioned factory, the "artificial weather" necessary to compensate for the lack of

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[93] *Flying and Popular Aviation Magazine, "Blackout Factory." 1941.*

[94] *McDonnell Douglas, McDonnell Douglas 50th Anniversary in Long Beach Commemorative Magazine (Long Beach, CA: Long Beach Business Journal), 1990.*

ventilation.[95] Then-new mercury and fluorescent lights were installed throughout. Duplicate utilities were also installed to insure against potential power loss. The entire facility was publicized as bombproof and featured underground bomb shelters to accommodate 18,000 workers. Additional underground storage for parts and completed airplanes was built.

During wartime, the plant ultimately grew to encompass nearly 2.8 million square feet in 18 buildings occupying approximately 242 acres. With more than 1.4 million square feet of covered floor area, the original 10-factory building plant was the largest ever built by Douglas, nearly equaling the combined area of the Santa Monica and El Segundo factories.

During peak production, the Long Beach plant produced 108 airplanes a week, employing 43,000 workers on a 24-hour schedule.[96] The 43,000 workers accounted for more than a quarter of the 160,000 Douglas workers nationwide and 14 percent of the 300,000 aircraft industry employees in southern California.[97] Of those workers, 22,308 were women. A sweeping national campaign was mounted by the government in 1941 to draw women into the national workforce, especially into jobs of an industrial manufacturing nature, and replace the men who had joined the armed services. Over 7 million women entered the national workforce during the course of World War II, an estimated 2 million of them in industrial jobs at shipyards, aircraft manufacturing plants and other factories. The image of women outfitted in overalls and headscarves and wielding industrial tools became an icon and was popularized in a 1942 song, “Rosie the Riveter,” giving rise to the campaign’s name.[98] During the years between 1940 and 1945 the percentage of women in the labor force rose 50 percent, from 12 to 18 million.[99] Peak wartime employment company-wide at Douglas was recorded at 160,000 workers.[100] Overall Douglas added 600 employees a week on average in mid-1941.

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[95] *Douglas Aircraft Company, Douglas Airview, vol. VIII, no. 10. (Santa Monica, CA: Department of Industrial and Public Relations Douglas Aircraft Company), 1941.*

[96] *Albrecht, World War II and the American Dream: How Wartime Building Changed a Nation.*

[97] *Historical Society of Southern California, “Donald W. Douglas,” http://www.socialhistory.org/biographies/ddouglas.htm, 2000.*

[98] *Rosie the Riveter Trust, http://www.rosietheriveter.org, 2001.*

[99] *Long Beach Journal, McDonnell Douglas-Douglas Aircraft Company: 1st 75 Years (Long Beach, CA: Long Beach Business Journal), 1995.*

[100] *The Boeing Company, A Brief History of the Boeing Company (Seattle, WA: Boeing Company), 1998.*

Between 1942 and 1945, the Douglas Aircraft Company, at its six wartime factories, built 29,385 airplanes, representing 16 percent of all the U.S. airplanes produced, 9,441 of which were produced in Long Beach.[101] Among the notable aircraft produced by Douglas was the C-47 "Skytrain," the best known of the company's transports. Douglas produced more than 10,000 C-47s. It was praised by Eisenhower as one of the four most vital pieces of military equipment in the war effort, together with the jeep, the bazooka, and the nuclear bomb, and played a prominent role in supply transport in the D-Day invasion at Normandy. The plane was later involved in the Korean War and Vietnam. Other aircraft produced at the Long Beach plant included A-20 and A-26 attack bombers, the B-17 bomber (under license from Boeing), and the C-74 "Globemaster," which was built at the end of the war. The Long Beach plant is described by one source as "the incubator of the aerospace industry in southern California."[102]

(4) Douglas and the Modern Military Industrial Complex

Although the end of World War II brought an abrupt end to the wartime production effort, the massive military-industrial base that had been put into place endured and provided a framework for the development of an integrated modern arms industry that supported the Korean War and the deepening Cold War.[103] While orders for military aircraft were canceled and many factories closed, the government was committed to maintaining a permanent defense readiness. Certain factories were designated as vital to national security. Those who did not find buyers were retained as an industrial reserve; others were sold or leased to independent contractors for civilian production, with the requirement that they be available for military production in an emergency.

Douglas reorganized its three southern California plants along customer and product lines. Santa Monica became the center for production of commercial transports and their military derivatives, El Segundo for Naval aircraft, and Long Beach for Air Force production. After World War II, Douglas continued providing military aircraft such as the AD Skyraider attack aircraft; F3D Skyknight naval night fighter; B-26 bomber; and the C-74, C-124, C-47, and C-54 transports. The worsening Cold War situation resulted in more orders for the A3D Skywarrior attack plane, F4D Skyray fighter, C-124 Globemaster II, and new aircraft such as the B-66 Destroyer and the A4D Skyhawk attack plane, among others.

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[101] *The Boeing Company, A Brief History of the Boeing Company, 1998; McDonnell Douglas, McDonnell Douglas 50th Anniversary in Long Beach Commemorative Magazine, 1990.*

[102] *Long Beach Press-Telegram, "Douglas at 75: A Special Report."*

[103] *Albrecht, World War II and the American Dream: How Wartime Building Changed a Nation.*

By the mid-1950s, the world had also entered the jet age. The company eventually entered the jet airliner market. Douglas broke ground in 1956 on a new $20 million facility located on the east side of Lakewood Boulevard, adjacent to the existing Long Beach plant, dedicated for the production of the DC-8. May 1958 saw the maiden flight of the first Douglas commercial jet airliner, the four-engine DC-8, which established world speed, payload, and range records.[104] The introduction of this new commercial aircraft assembly facility allowed for simultaneous military and commercial aircraft production both at the same plant.

Alongside jet engine development, Douglas was one of the earliest aircraft manufacturers to begin missile production. As early as 1941, the company had developed and was testing the ROC-I, an air-to-surface guided missile. Its successor, the ROC-II, followed in 1943. Neither saw use during the war, but their development positioned Douglas as the leader in the field of missile technology.

In 1961, Douglas decided to separate production of commercial aircraft from missile and space operations. The Long Beach facility was turned over to the newly created Aircraft Division, and construction began on a new administrative headquarters, a 9-story administration building and a 3-story engineering and product development structure. During the 1960s, the Aircraft Division went on to produce the DC-9. By the end of the decade, the company found itself with an overabundance of orders to fill. In response to the escalating price of raw materials and the significant expenses associated with the construction of new facilities, Douglas merged with the McDonnell Corporation in 1967, and was renamed the McDonnell Douglas Corporation. The new company introduced the wide-body DC-10 jumbo jet in April 1970.

(5) McDonnell Douglas

The McDonnell Company, founded by James Smith McDonnell (1899-1980) had a reputation as a strictly military contractor. McDonnell had contracted with Boeing and Douglas during World War II, employing approximately 400 people in the manufacture of parts in 1941. McDonnell also pursued development of the jet engine during the war years and garnered a contract to build a fighter jet in 1944. The company's experience in jet engine development allowed it to successfully reposition itself as a builder of jet fighters during the postwar period, a transformation that was complete by 1959. It had also experimented with rocketry as early as 1944, producing glide bombs called Gargoyles,

[104] *The Boeing Company, "Boeing 717 Manufacturing Plant, Long Beach, CA." www.boeing.com/commercial/facilities/longbeachsite.html*

and developed other missiles through 1959, and in 1960 earned a commission from NASA to build the first manned spacecraft, the Mercury. The Mercury was the first spacecraft to go into orbit, and was followed by the Gemini in 1965. McDonnell's merger with Douglas allowed both to remain prominent in the aerospace industry, second only to Boeing.

(6) Boeing

William E. Boeing (1881-1956), while learning to fly under the tutelage of early aviator Glenn L. Martin (founder of the Glenn L. Martin Aircraft Company, now part of Lockheed Martin) in 1915, became convinced of the airplane's future as a means of transportation. With his friend George Westervelt, a Navy engineer, Boeing built a twin float seaplane, the "B & W" (named after Boeing and Westervelt), at his boathouse in Seattle. Westervelt was reassigned to Washington, D.C. before the plane was completed. However, Boeing took the B & W up on its first flight on June 15, 1916. One month later, Boeing incorporated his company as the Pacific Aero Products Company and continued to manufacture B & Ws. The following year Boeing renamed his company the Boeing Airplane Company. World War I offered Boeing a chance for growth with the design and construction of the Model-C Seaplane for the Navy. During the 1920s, Boeing became a leading producer of fighters, beginning with the Boeing Model 15 in 1923. Its Model 40A secured a U.S. Postal contract to deliver mail between San Francisco and Chicago, and Boeing Air Transport (BAT) was created to run the new airline.

Boeing Airplane and Transport Corporation became United Aircraft and Transport Corporation in 1929. The company developed the Model 247 airliner, the foundation of commercial aviation. Forced under anti-trust laws to break up in 1934, the company divided into three entities: United Airlines (air transportation), United Aircraft (manufacturing in the eastern U.S.), and Boeing Airplane Company (manufacturing in western U.S.). Boeing Aircraft turned to design and production of large bombers and passenger planes, developing the prototypes of the B-17 bomber and the Clipper and Stratoliner passenger aircraft. Boeing's success in bomber production continued after the war with the manufacture of the B-47 and B-52 bombers, the KC-97 aerial tanker, and the new technology of jet propulsion. The new prototype was the basis for the KC-135 aerial tanker and the 707-120 passenger aircraft. The 707, and the later 727, the 737, and the 747, went on to dominate passenger aircraft production.

During the 1950s, Boeing's military successes continued with Bomarc missiles and Minuteman intercontinental ballistic missiles. For NASA in the 1960s and 1970s, Boeing built the first stage of the Saturn-V rocket, Lunar Orbiters, the Lunar Roving Vehicle, and the Mariner-10 probe. In 1996, Boeing merged with Rockwell International's aerospace and defense units, and the divisions were renamed Boeing North American, Inc. The

following year, Boeing merged with McDonnell Douglas, thereby becoming the world's largest commercial jetliner manufacturer and NASA's largest contractor.

c. Regulatory Framework

The protection of cultural resources falls within the jurisdiction of several levels of government. Federal laws provide the framework for the protection of cultural resources. However, the states and local jurisdictions must play active roles in the identification and documentation of such resources within their communities.

(1) National Register of Historic Places

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Eligibility is not dependent on whether or not a federal agency has jurisdiction over the property in question. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria:[105]

- That are associated with events that have made a significant contribution to the broad patterns of our history (Criterion A); or
- That are associated with the lives of persons significant in our past (Criterion B); or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (Criterion C); or
- That have yielded, or may be likely to yield, information important in prehistory or history (Criterion D).

Unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for National Register listing. In addition to meeting the criteria of significance, a property must have "integrity." Integrity is understood as "the ability of a

[105] *United States Department of the Interior, National Register Bulletin 16, "Guidelines for Completing National Register Forms," (Washington, DC: National Park Service), rev., 1995.*

property to convey its significance."[106] The National Register recognizes seven qualities that, in various combinations, define this concept. These qualities are: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.[107]

(2) California Environmental Quality Act

Archaeological resources require impact analysis under CEQA (Public Resources Code Sections 21000 et seq.). As defined in Section 21083.2 of the Public Resources Code a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, CEQA Section 15064.5 broadens the approach under CEQA by using the term "historical resource" instead of "unique archaeological resource." Under CEQA, a "project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment."[108] This statutory standard involves a two-part inquiry. The first involves a determination of whether the project involves a historical resource. If so, then the second part involves determining whether the project may involve a "substantial adverse change in the significance" of the historical resource. To address these issues, guidelines that implement the 1992 statutory amendments relating to historical resources were adopted in final form on October 26, 1998, with the addition of CEQA Guidelines Section 15064.5.

[106] *United States Department of the Interior, National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation." (Washington, DC: National Park Service), rev. 1997, p. 44.*

[107] *United States Department of the Interior, National Register Bulletin 15, p. 44.*

[108] *California Public Resources Code Section 21084.1—Added in 1992 by AB 2881.*

The new CEQA Guidelines specify that for purposes of CEQA compliance, the term "historical resources" shall include the following:[109]

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.

- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements in section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.

- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of §21084.1 of the Public Resources Code and §15064.5 and §15126.4 of the CEQA Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the Guidelines but does meet the definition of a unique archaeological resource in §21083.2 of the Public Resources Code, then the site is to be treated in accordance with the provisions of Public Resources Code §21083.2. The

[109] *State CEQA Guidelines, 14 CCR Section 15064.5(a).*

Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. (CEQA Guidelines §15064.5(c)(4)).

(3) California Register of Historical Resources

The California Register was established to be a comprehensive listing of the State's historic resources, including those of national, State, and local significance. Created by Assembly Bill 2881, signed into law on September 27, 1992, the California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."[110] The criteria for eligibility for the California Register are based upon National Register Criteria.[111] In order to be listed in the California Register, a resource must meet one or more of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States (Criterion 1);
- It is associated with the lives of persons important to local, California, or national history (Criterion 2);
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values (Criterion 3); or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4).

Resources eligible for listing in the California Register must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that resources which may not retain sufficient integrity for listing in the National Register may still be eligible for the California Register. Moved or reconstructed buildings, structures, or objects, and resources

[110] *California Public Resources Code Section 5024.1(a).*

[111] *California Public Resources Code Section 5024.1(b).*

achieving significance within the past 50 years may also be considered for listing in the California Register under specific circumstances.

(4) California Office of Historic Preservation Survey

The Office of Historic Preservation (OHP) utilizes a three-digit evaluation code consisting of seven categories to specify National Register eligibility. California properties that are evaluated for historic significance are classified according to these instructions for assignment of a three-digit classification code. The first digit indicates one of the following general evaluation categories:[112]

1. Listed on the National Register of Historic Places
2. Determined eligible for listing in the National Register of Historic Places
3. Appears eligible for the National Register of Historic Places
4. May become eligible for the National Register of Historic Places
5. Not eligible for the National Register of Historic Places, but of local interest
6. None of the above
7. Undetermined

The second digit is a letter code indicating whether the resource is separately eligible (S), eligible as part of a district (D), or both (B). The third digit is a number used to further specify significance and refine the relationship of the property to the National Register. Under this system categories 1 through 4 pertain to various levels of National Register eligibility. However, surveyed resources through level 5 (e.g., properties ineligible for listing in the National Register, but of local interest) may be eligible for inclusion in the California Register. Properties found ineligible for listing in the National Register and which are of no local interest, are given an evaluation rating of 6.

(5) City of Long Beach

The City of Long Beach, through provisions in the Long Beach Municipal Code, established processes to designate and preserve important cultural resources. These provisions (Ordinance) are found in Chapter 2.63 (Cultural Heritage Commission), and

[112] *California Register Regulation—14 CCR, Chapter 11.5, Section 4852(e)(2).*

provide tools for recognizing, preserving, protecting, and using cultural resources located within the City. The Ordinance stipulates obligations required of the Cultural Heritage Commission (CHC), as well as those required of owners of designated city landmarks.

Section 2.63.020(F) states that a "cultural (historic) resource" is any area, district, street, place, building, structure, permanent work of art, natural feature, or other object having a special historical, cultural, archaeological, architectural, community, or aesthetic value. Section 2.63.020(J) also states that a local landmark is any site or improvement, man-made or natural, which has special character or special historical, cultural, architectural, community or aesthetic value as part of the heritage of the City, State, or the United States, and which has been designated as a landmark pursuant to the provisions outlined in Chapter 2.63 of the Municipal Code.

(6) City of Lakewood

The City of Lakewood has no mechanism in place to designate cultural resources.

d. Identification of Cultural Resources

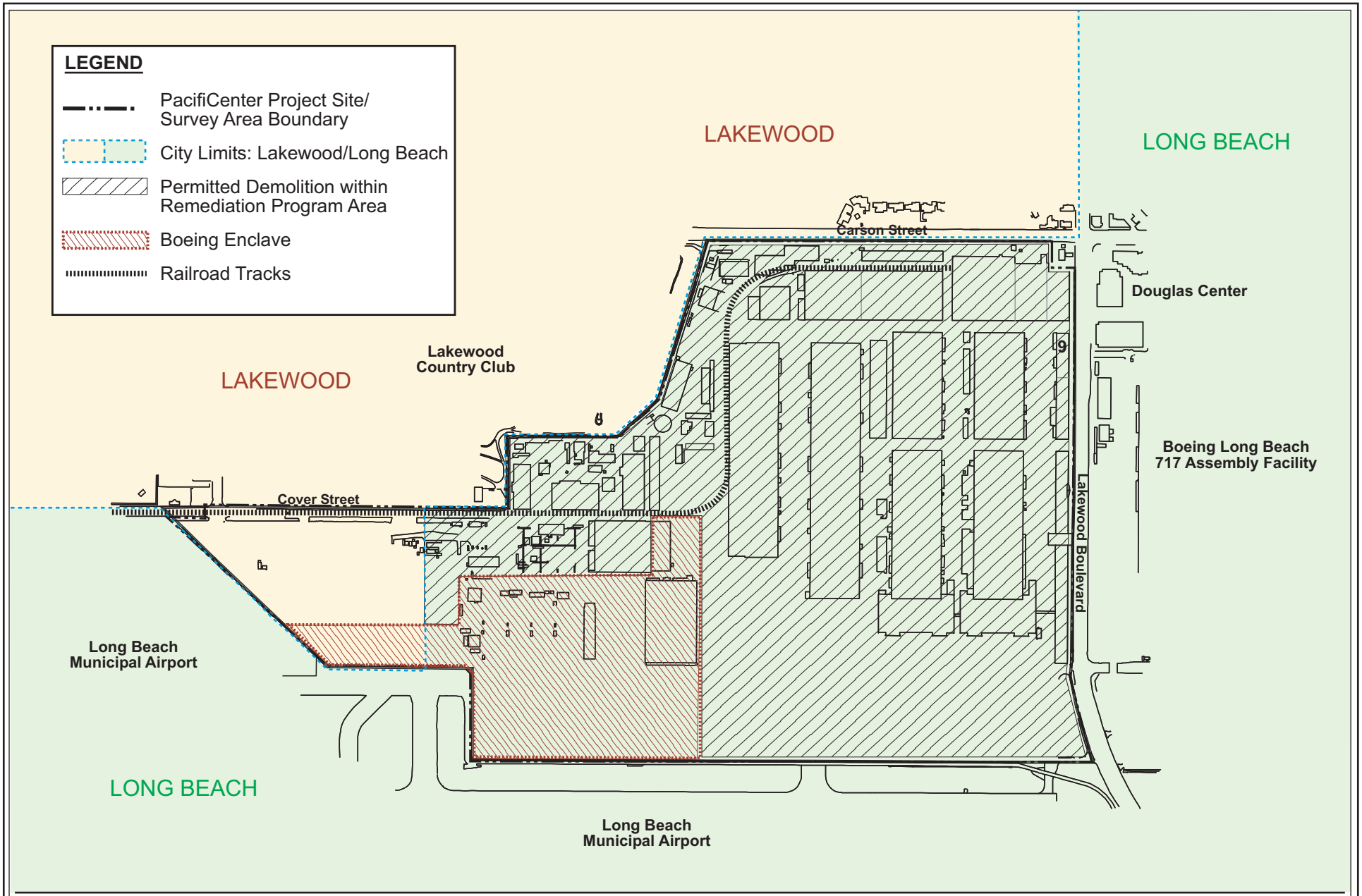
(1) Survey Study Area

The survey study area (study area) for the identification and evaluation of historic resources, archaeological resources, and paleontological resources is defined as the project site, which encompasses the west plant of Boeing Long Beach. Roughly bounded by Lakewood Boulevard and the east Boeing plant on the east, Carson Street on the north, the tarmac of the Long Beach Airport on the south and the Lakewood Country Club and unrelated industrial improvements on the west, the study area reflects the historic boundaries and the inner directed, self-contained character of the facility. The study area is primarily located within the City of Long Beach, with a small corner on the west lying within the boundaries of the City of Lakewood. As shown in Figure 33 on page 294, much of the project site is permitted for demolition in accordance with the mandated remediation program for the project site.

(2) Previously Identified Properties

(a) Archaeological Resources

A records search was initiated at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. No prehistoric archaeological resources



PCR

Scale Not Provided

Source: Boeing Realty Corporation and PCR Services Corporation, 2004

Figure 33
Cultural Resources Survey Study Area

were reported within the study area or a one-mile radius of the project site. Two previous archaeological surveys had been conducted within a one-mile radius of the project site. Both of these were linear surveys adjacent to the project site; one along Lakewood Boulevard to the east and the other along Carson Street to the north. No archaeological resources were identified as a result of either of these surveys.

Beyond contacting SCCIC, the sacred lands file was checked by the Native American Heritage Commission (NAHC). The sacred lands file check did not indicate the presence of Native American cultural resources on or in the immediate vicinity of the project site. The NAHC letter continued to state that the absence of specific site information in the file was not sufficient to conclude that sacred sites do not exist on the project site. Therefore, Native American individuals and organizations identified by the NAHC were contacted to identify potential sacred sites that may be within the project site. Two response letters were received; neither respondent identified any sacred sites within the study area.

(b) Paleontological Resources

The Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County conducted a paleontological records search for the proposed project. [113] This record search identified surficial deposits composed of terrestrial Quaternary Alluvium in the uppermost layers of soils within a one-mile radius of the project site. Since the project site and much of the surrounding vicinity has been previously graded and developed, these deposits do not likely contain significant fossils in the uppermost layers. However, at greater depths, older terrestrial Quaternary deposits that contain significant vertebrate fossils and Plio-Pleistocene marine sediments and fossil vertebrate remains have been identified within a one-mile radius of the project site.

Due to the location of the proposed project within a previously graded and developed area, there are no unique geologic features on the project site or in the immediate project vicinity.

[113] *Natural History Museum of Los Angeles County, Paleontological Records Search for the Boeing PacifiCenter, City of Long Beach, Los Angeles County, One-Mile Radius, Long Beach Quad 7.5', Project Area, October 27, 2002.*

(c) Historic Resources

None of the properties located within the study area have been previously surveyed or evaluated for historical and/or architectural significance. Within a one-mile radius of the project site the California Historical Resources Information System identified one previously surveyed property listed in the California Historic Resources Inventory maintained by OHP. This property is the Lakewood Country Club Clubhouse located at 3101 East Carson Street in Lakewood. The Clubhouse, built in 1933, was identified as potentially eligible for listing in the National Register when more historical and/or architectural research is performed on the property (OHP rating 4S). Though not identified by OHP, according to the City of Long Beach Historic Resources Register, one property within the one-mile radius records search area was identified. The Long Beach Airport Terminal (1941), located approximately one-half mile south of the project site at 4100 East Donald Douglas Drive, was designated a City of Long Beach Cultural Heritage Landmark in 1990. This property stands some distance away from the study area and is separated from it by the airport runways.

(3) Archaeological Resources Sensitivity Map

Currently, the project site is developed with buildings and asphalt parking lots. In addition, as a result of recent demolition activities associated with the mandated remediation program underway for the site, many areas of the site have been graded. After completion of the ongoing remediation program wherein much of the 261-acre project site will be stripped down to such native and disturbed soils as exist beneath the existing improvements. Additionally, some native soil may be removed during remediation activities. Due to the existing structural and pavement improvements, the project site cannot be surveyed by conventional archaeological survey methods by which the natural ground surfaces are methodically transected and observed for surface indications of resources or artifacts. Nonetheless, the absence of archaeological resources on the surface should not be construed to mean that such resources are absent subsurface. The Los Angeles Basin is largely an alluvial deposit and archaeological sites may be buried at sufficient depths that modern development does not disturb them. Archaeologists do find sites with no surface manifestation. These sites are often in good condition, and yield insights into southern California's prehistory.

In lieu of an archaeological inventory survey, a subsurface Archaeological Resources Sensitivity Map was produced as a model of where archaeological resources may be more likely to occur and the extent by which such potential resources may already have been disturbed by modern activities. The map, presented in Figure 34 on page 297, was developed through an examination and interpretation of various archival and

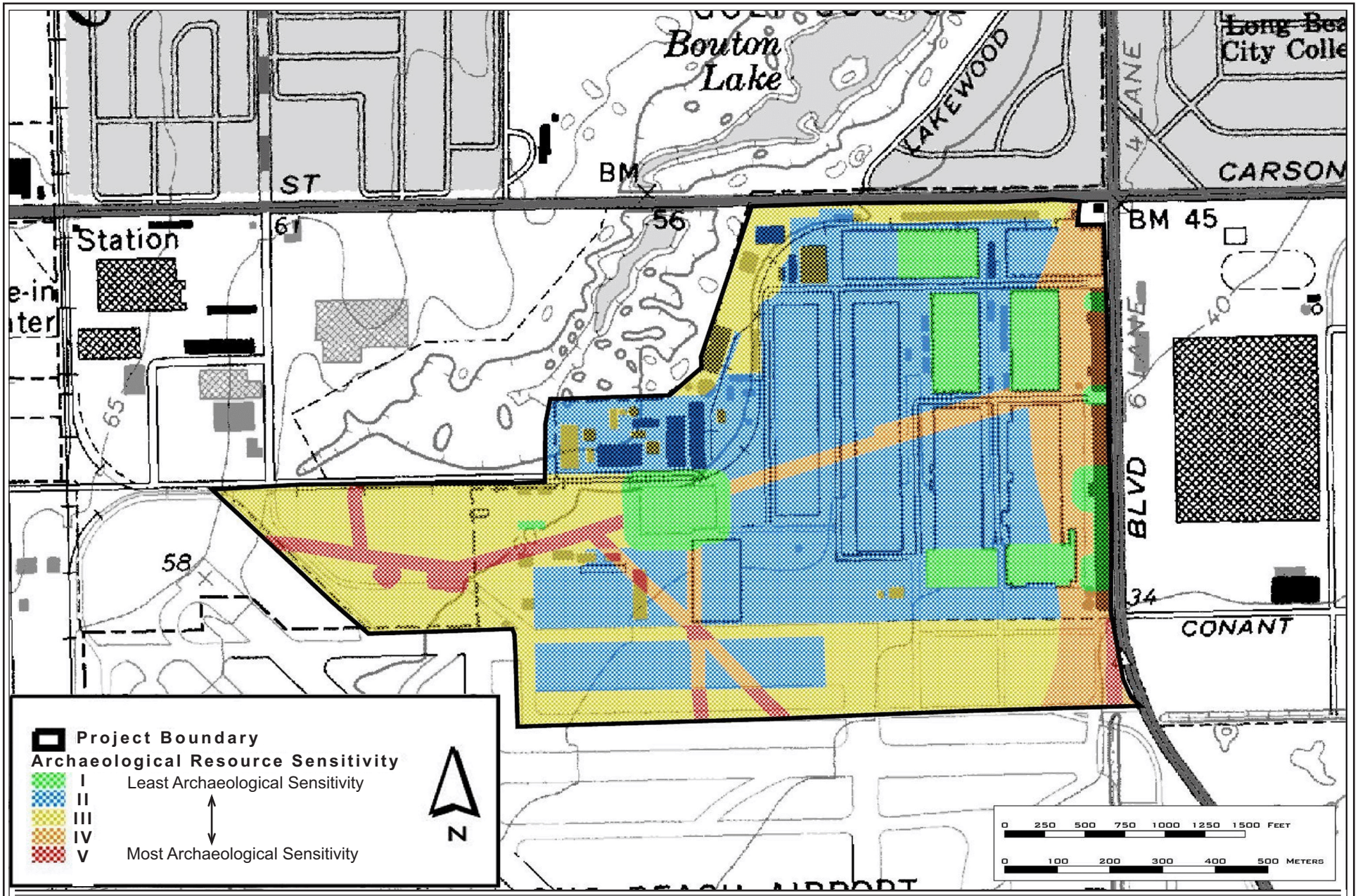


Figure 34
Archaeological Resources Sensitivity Map

Source: Statistical Research Inc. 2003

geological sources, after which modern ground disturbances such as underground utilities and buildings were integrated into the model.

The development of the Archaeological Resources Sensitivity (ARS) Map began with the assignment of all parts of the survey study area to one of three categories. These categories were derived from geologic (Pleistocene or Holocene alluvium) and archival (features on historic maps) sources. The first category represents locations on the USGS 1925 Quadrangle that reflect portions of the built environment prior to construction of the Douglas Aircraft Company Long Beach plant. This includes six buildings, three road segments, and two probable drainage control features. The historic significance of these features would need to be evaluated should traces be found. However, encountering these precise features is unlikely given the post-1925 disturbance on the site. A more likely occurrence is encountering associated subsurface features, such as trash dumps, privies, or wells. These features might have archaeological significance as they often contain intact refuse that inform on the historical-period residents of the region. Accordingly, these mapped features were assessed as "high" sensitivity. To ensure that all such features were encompassed, a buffer zone of high sensitivity was placed 50 feet around the structures and 25 feet along the road and drainage control.

The second category is defined as the Holocene alluvium. The Holocene alluvium may contain surficial and/or buried prehistoric archaeological deposits. Because these areas were prone to flooding, habitation sites are not expected to be encountered. Special activity sites associated with procuring and processing wetland and riparian resources may be found.

Areas of Pleistocene alluvium are defined as the third category. Elevated and dry, humans favored these surfaces in the past for a range of activities, including habitation and resource procurement. Because these sites are near the surface, they are subject to post-depositional processes. In particular, disturbance associated with historical and modern improvements on the property would impact sites on the Pleistocene alluvium.

After these categories were applied to the study area, the area was evaluated for the presence of modern impacts. Three levels of modern impacts were identified; minor, moderate, and major. Minor impacts are assumed to have taken place across the entire project site. These include ground cover clearing and light grading (i.e., surface preparation for construction of roads, parking lots, taxiways, etc.). Moderate impacts include concrete-slab structures and areas around underground utilities. The impact of utility lines tends to be local, and thus, single or even multiple lines do not generally destroy archaeological sites that are cut by utilities. The intent with the sensitivity map has been to map major utility corridors and clusters, and not to plot each utility line. Major

impacts include buildings with multiple heavy machinery pits, buildings with basements or substantial foundations, and tunnels. The construction of such facilities is presumed to have destroyed, in their entirety, any archaeological resources that may have been in those locations.

The level of modern impact was associated with each of the three categories to create a composite of resource sensitivity. Least sensitive areas are those that have been subject to major impact regardless of the underlying geologic deposit or historical land use (Sensitivity Class I; least likely to contain archaeological deposits). Areas subject to moderate impact on Pleistocene alluvium are placed in Sensitivity Class II. Areas of minor impact on the Pleistocene surface are assigned to Sensitivity Class III. Most archaeological sites that might have been located on Pleistocene soil would probably have been destroyed by historical and modern impacts, leaving the remainder in highly disturbed states. Areas of Holocene alluvium that have had minor or moderate impacts and historical mapped features that have been moderately impacted are designated Sensitivity Class IV. Archaeological sites created on Holocene surfaces might have been spared destruction, because flood deposits buried many prehistorically. Finally, areas of minor impact that cover historical mapped features have been designated as the most likely areas to contain archaeological sites, or Sensitivity Class V.

(4) Buildings and Features Located within Survey Study Area

The Boeing Long Beach west plant occupies an irregularly shaped parcel of approximately 261 acres. Prior to the initiation of demolition activities associated with the remediation program, the project site contained approximately 140 improvements, including 92 numbered permanent buildings, assorted sheds, lean-to's, carports, trailers, and modular buildings, plus freestanding equipment assemblies and features such as railroad tracks, tunnels, and underground bomb shelters.[114] Several of the numbered buildings are in fact small outbuildings and later additions to the primary buildings on the site. The property is enclosed by fences and gates and by the unbroken facades of the buildings that line the Lakewood Boulevard frontage. In order to identify potentially historic improvements, the survey researched and evaluated the 27 primary buildings and two other features in the west plant as indicated in Table 18 on page 300. With the exception of Building 15, most of the oldest buildings are located in the east section of the project site, arranged in five parallel tiers oriented north and south and linked across the north end by an east-west row.

[114] *The Boeing Company, "Douglas Aircraft Company Facilities." Long Beach Structures Map (Long Beach, CA: Boeing Company) 2001.*

Table 18

PROPERTIES SURVEYED WITHIN THE STUDY AREA

Building No.	Description	Year Built	OHP Rating
1	Production Development and Computing	1941	3D
2	Administration Offices and Tooling	1941	3D
3	Machine Shop	1941	3D
4	Tubing and Ducting	1941	3D
5	Processing, Paint, and Sub-Assembly	1941	3D
5A	Processing	1988	6Z1
6	Metal Forming	1941	3D
6A	Fabrication and Warehouse	1942	3D
7	Administrative Offices	1942	3D
8	Cafeteria	1941	3D
9	Administration Offices and Dispensary	1941	3D
10	Warehouse—Paint Storage (not original #10)	1941	6Z1
11	Maintenance and Transportation	1941	3D
12	Assembly	1942	3D
13	Assembly	1942	3D
14	Maintenance Shops	1942	3D
15	Experimental Shop and Sub-Assembly	1942	3D
16	Tooling	1942	3D
17	Administration Offices	1944	3D
18	Administration Offices	1942	3D
18A	Aircraft Division Headquarters Building	1962	5S3
26	Engineering Laboratory	1954	6Z1
28	Reliability Assurance Laboratory	1961	6Z1
32	Engineering Laboratory	1954	6Z1
35	Engineering Offices	1965	6Z1
36	Engineering Offices	1962	6Z1
41/41A	Engineering Development Center	1970	6Z1
Other	Railroad Tracks	1940	3D
Other	Underground Features	1941	3D

Notes:

3D Property appearing eligible for the National Register as a contributor to a fully documented district.

5S3 Property appearing ineligible for the National Register and for local landmark designation, but eligible for special consideration in the local planning process.

6Z1 Property appearing ineligible for the National Register with no potential for any other listing or designation.

Source: PCR Services Corporation; SAIC, 2001

None of the buildings, structures, or objects located within the project site have been previously evaluated for historical and/or architectural significance (See Table 18). However, upon concluding the current survey process for the purposes of CEQA compliance, one historic resource—a grouping of 18 contributing buildings, four

non-contributing buildings, and two other features—was identified as a potential historic district eligible for the National Register of Historic Places, the California Register of Historical Resources, and for local designation as a City of Long Beach historic district. (See Figure 35 on page 302.) As shown in Figure 33, to provide for remediation activities, much of the development within the site is permitted for demolition pursuant to demolition permits issued by the City of Long Beach. With the exception of Building 15 and underground features, all of the contributing buildings and features in the identified potential historic district are located within the area currently permitted for demolition in accordance with the remediation program. Once operations within the Boeing Enclave cease, Building 15 together with other buildings within the Boeing Enclave may be demolished as part of the remediation program or as part of the proposed project.

(a) Potential Historic District

(i) National Register of Historic Places

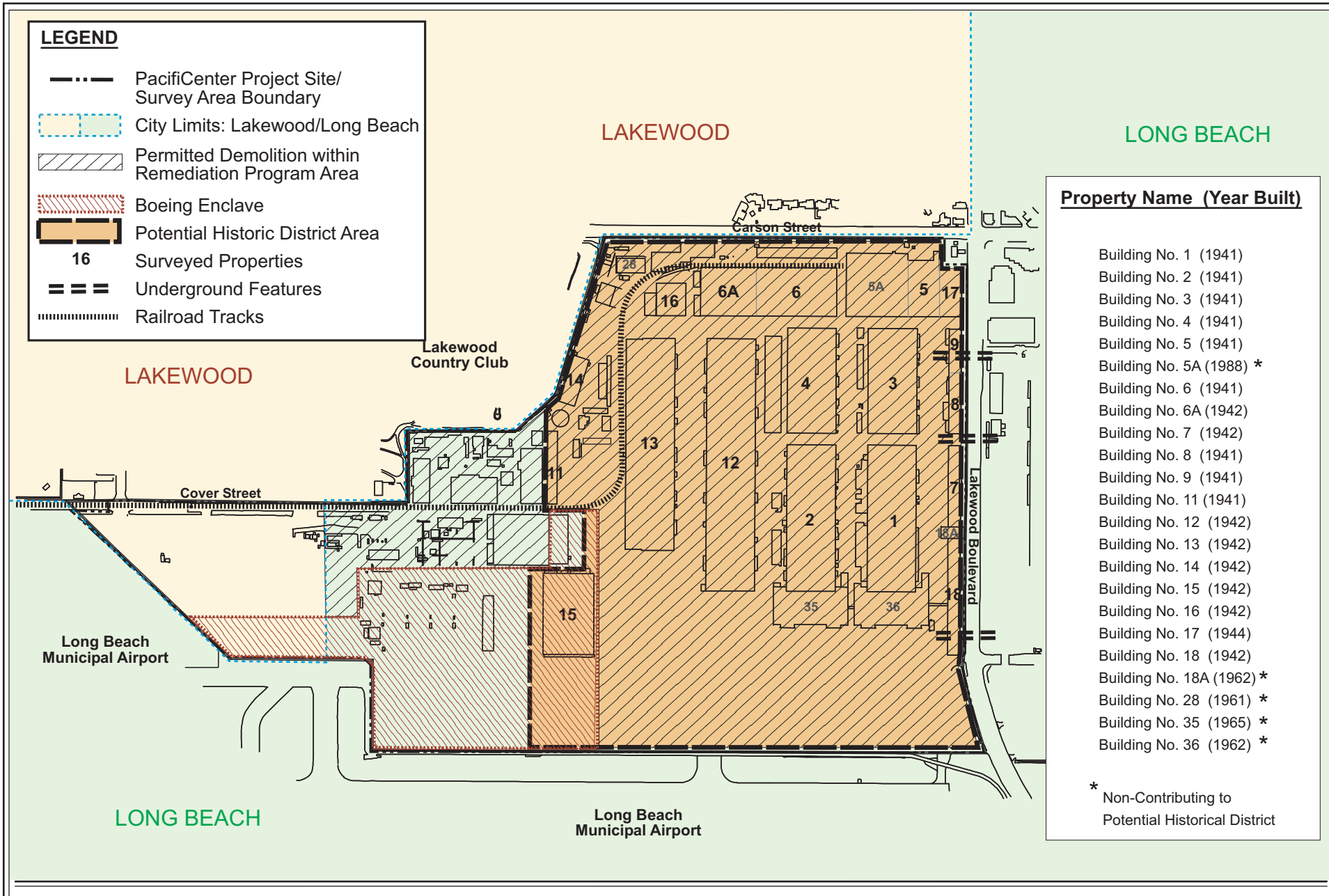
The potential historic district appears to qualify for listing in the National Register under Criterion A because it is associated with events that have made a significant contribution to the broad patterns of the region's history. Specifically, the grouping of buildings within the district is historically significant for the following reasons:

- The facility made a significant contribution to the development of the aviation industry in southern California.

- Constructed as a critical early step in creating the "Arsenal of Democracy" during World War II, the facility contributed substantially to the war effort and figured prominently in the movement to use women workers ("Rosie the Riveters") on the Home Front.

- Building and operation of the Long Beach aircraft assembly plant was highly influential for the growth and prosperity of the region, especially the cities of Long Beach and Lakewood.

The primary period of significance of the potential historic district is the World War II era, from 1940, when plans for construction of the plant were begun, until the war's conclusion in 1945. The boundaries of the historic district are presented in Figure 35 on page 302 and reflect both historic property lines and the locations of the first generation of buildings on the site. Eighteen buildings and two other features are identified as contributors to the significance of the site, all of which were constructed during the period of significance as part of the World War II defense build-up. The contributors have been



PCR

Scale Not Provided

Figure 35
Potential Historic District

Source: Boeing Realty Corporation and PCR Services Corporation, 2004

assigned a National Register status code of 3D.[115] Four buildings are identified as non-contributors, since their post-war construction precludes them from the same historic associations. Of these post-war era buildings, the Aircraft Division Headquarters Building (Building 18A), the most visible symbol of the plant after 1962, possesses local interest and has been assigned a status code of 5S3 (not eligible for separate listing or designation under an existing local ordinance but is eligible for special consideration in local planning). The remainder of the non-contributing buildings within the defined historic boundary, as well as those located to the west, have been categorized as 6Z1 (found ineligible for listing in the National Register and for designation under a local ordinance). These classifications are summarized in Table 19 on page 304 and are discussed in more detail in Appendix G to this Environmental Impact Report.

The potential District retains integrity of its World War II appearance. The plan and layout of the complex is the same, as can be confirmed from aerial photographs taken then and now. This arrangement of five parallel rows of industrial buildings oriented north-south, linked at the north by a perpendicular row is intact, with the exception of one of the smallest structures, Building 10, moved to a location west of the historic core of the plant in 1969. All of the buildings that were constructed during the period of significance are extant, and with the single exception noted above remain on their original sites. These include ten of the original eleven buildings built in 1941, the seven buildings finished in 1942, and one building from 1944. Construction within the plant after the period of significance has included four principal buildings within the proposed district—buildings 18A, 5A, 35, and 36. All of these buildings are located on or near the perimeter of the proposed district and their construction did not require substantial demolition of historic features. Additional new construction within the proposed district has largely consisted of storage sheds, lean-to's, carports, and freestanding structures and equipment, none of which equals in scale or prominence the contributing buildings.

The exteriors of the buildings contributing to the potential historic district largely retain integrity of materials and design. Corrugated metal cladding, flat roofs, Firguson vertical lift hangar doors and horizontal sliding doors remain the principal building elements. Interiors have been adapted to accommodate changing production lines; however, the building shells—walls, floors, ceilings—and occasionally floor and ceiling machinery tracks are intact. Although the blackout protection provided by the inner doorways has been removed, the buildings are still totally dependent on interior illumination. While the camouflaging set up during the war was removed long ago, the mechanical penthouses, incorporated into the camouflaging scheme, remain in place.

[115] *Office of Historic Preservation, "Appendix 2: National Register Status Codes,"* Instructions for Recording Historical Resources*, 1997. Status code 3D: Contributor to a fully documented historic district.*

Table 19

POTENTIAL HISTORIC DISTRICT

Building No.	Completion Date	Contributor	Status Rating
1	1941	Yes	3D
2	1941	Yes	3D
3	1941	Yes	3D
4	1941	Yes	3D
5	1941	Yes	3D
5A	1988	No	6Z1
6	1941	Yes	3D
6A	1942	Yes	3D
7	1941	Yes	3D
8	1941	Yes	3D
9	1941	Yes	3D
11	1941	Yes	3D
12	1942	Yes	3D
13	1942	Yes	3D
14	1942	Yes	3D
15	1942	Yes	3D
16	1942	Yes	3D
17	1944	Yes	3D
18	1942	Yes	3D
18A	1962	No	5S3
28	1961	No	6Z1
35	1965	No	6Z1
36	1962	No	6Z1
Other Feature	Railroad Tracks	1940	3D
Other Feature	Underground Features	1941	3D

3D Property appearing eligible for the National Register as a contributor to a fully documented district.

5S3 Property appearing ineligible for the National Register and for local landmark designation, but eligible for special consideration in the local planning process.

6Z1 Property appearing ineligible for the National Register with no potential for any other listing or designation.

Source: PCR Services Corporation; SAIC, 2001.

The most notable alteration of a contributing building is the enclosure of the original Lakewood entrance in Building 7; however, all other aspects of the architectural detailing on the Lakewood frontage, including fluted panels and square patterned parapets, are intact.

Character-defining features of the setting of the proposed district similarly retain integrity. These include the railroad tracks, located at the west end of the proposed district, and the three tunnels, which connect the west plant with the east plant (originally the wartime parking area) and their portals. The relationship to the runways of the Long Beach Airport is also intact; the hangar doors of Buildings 12, 13, and 15 still face this open space. And, as previously noted, the private internal streets created by the plan of the complex are also intact.

(ii) California Register of Historical Resources

Because the California Register criteria are modeled closely on National Register criteria, and because resources listed in or determined eligible for listing in the National Register are automatically listed in the California Register, the identified potential historic district appears eligible for listing in the California Register under Criterion 1.

(iii) City of Long Beach

The 18 buildings and two other features contributing to the identified potential historic district also appear eligible for designation as a local landmark district of the City of Long Beach under Criteria A and B:

- It possesses a significant character, interest, or value attributing to the development, heritage or cultural characteristics of the City, the southern California region, the state or the nation. (Criterion A)
- It is the site of a historic event with a significant place in history. (Criterion B)

2. ENVIRONMENTAL IMPACTS

a. Methodology

In order to identify and evaluate cultural resources, a multi-step methodology was utilized. Record searches for previous documentation of identified prehistoric and/or historic resources were conducted, including listing for pre-historic resources at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton and a sacred lands file check for the Native American Heritage Commission, and listings of historic resources in the National Register of Historic Places, determinations of eligibility for National Register listings, the California Historical Resources Inventory database and

the City of Long Beach Register of Historic Resources. The results of the record search by the SCCIC are attached to the technical reports located in the Appendix. Site inspections were made to document existing conditions, identify character-defining features of those properties evaluated as significant, and define the cultural resources study area. Reconnaissance-level surveys of the study area, including a pedestrian survey of the grounds; photography; and background research were then conducted. Additional background and site-specific research was done in order to evaluate historic resources within their historic context. The National Register of Historic Places, California Register of Historical Resources, and the City of Long Beach criteria were employed to assess the significance of cultural resources.

b. Thresholds of Significance

For purposes of this analysis, impacts to archaeological resources will be considered significant if:

- The project will cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15564.5 of the CEQA Guidelines.

In accordance with Section 21083.2 of the CEQA statute, project impacts to archaeological resources are considered significant if project activities could cause the damage to, and/or destruction of, a site that has been identified as archaeologically unique. The CEQA Guidelines also note that if an archaeological resource is identified as neither a unique archeological resource nor a historical resource, the affects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines § 15064.5(c)(4).

For purposes of this analysis, impacts to historic resources will be considered significant if:

- The project will cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines.

According to Section 15064.5(b), a project involves a “substantial adverse change” when one or more of the following occurs:

  - Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

– The significance of a historical resource is materially impaired when a project:

a. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

b. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or[116]

c. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.[117]

For purposes of this analysis, impacts to paleontological resources will be considered significant if:

- The project will directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

c. Analysis of Project Impacts

(1) Archaeological Resources

The archaeological assessment conducted did not determine the existence of any previously identified archaeological resources within the boundaries of the project site. Two previous surveys within one mile of the project site did not identify archaeological resources within those study areas. However, because much of the project site is entirely covered by buildings or surface paving, the property cannot be surveyed by conventional

[116] *State CEQA Guidelines, 14 CCR Section 15064.5(b)(1).*

[117] *State CEQA Guidelines, 14 CCR Section 15064.5(b)(1).*

archaeological survey methods. Moreover, a testing program by which the subsurface could be explored for the presence of unique archaeological resources could not previously be undertaken due to the safety and security precautions associated with the project site as part of a military and civilian aircraft manufacturing facility. Because survey and testing procedures could not be done, it must be concluded that there is at least a potential for previously unknown, buried archaeological resources to lie beneath the site surface. Although the existence of any such resources is entirely unknown, it is determined, for the purposes of conservative conclusion making, that the discovery of such a resource through post-demolition/post-remediation site grading or excavation would be an adverse and potentially significant, though mitigable, impact.

In addition, although it cannot be confirmed at this time, it is expected that the ongoing demolition activities associated with the mandated remediation program will not disturb native soils substantively more than the original construction and paving activities which installed them. Therefore, the existing condition of native soils following demolition and associated pavement removal is not expected to be substantively affected by those activities, except insofar as soil contamination is discovered which requires excavation and export. Impacts on any extant archaeological resources due to those activities would be attributable to the remediation program as a related project, and not to the PacifiCenter proposal as project impacts.

(2) Paleontological Resources

As discussed above, there are surficial deposits composed of terrestrial Quaternary Alluvium in the uppermost layers of soils within a one-mile radius of the project site. In addition, there are older terrestrial Quaternary deposits that contain significant vertebrate fossils and Plio-Pleistocene marine sediments and fossil vertebrate remains within a one-mile radius of the project site. Since the project site has been previously graded and developed, these deposits do not likely contain significant fossils in the uppermost layers. Therefore, shallow excavations on the project site will not likely encounter significant vertebrate fossils. Deeper excavations, however, could encounter significant terrestrial vertebrate fossils Late Pleistocene (Quaternary) age. In addition, if substantial subsurface excavations are conducted that extend into the underlying Plio-Pleistocene marine sediments, significant invertebrate and vertebrate fossils could be uncovered. These potential impacts will be reduced to less than significant levels with implementation of the mitigation measures provided below.

(3) Historic Resources

As previously discussed, the 18 buildings and two other features contributing to a potential historic district appear eligible for listing on the National Register, California Register, and as a City of Long Beach local landmark (3D). For the purposes of CEQA, the district is also considered a historic resource pursuant to Section 15064.5(a)(2)-(3) of the CEQA Guidelines. Activities associated with the potential district significantly contributed to the history of the aviation industry in southern California, the war (World War II) effort and the movement to use women workers on the Home Front, and to the development and growth of Long Beach and Lakewood.

The ongoing demolition activities necessitated by compliance with the mandated remediation program will remove all contributing and non-contributing resources within the potential historic district with the potential exception of Building 15 in the Boeing Enclave, which could be demolished as part of the remediation program or as part of the project. A project will normally result in a significant adverse impact if it impairs the significance of a historic resource through physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.[118] However, demolition of Building 15 would not be a significant project impact because this structure does not appear individually eligible for the National Register, the California Register or local landmark designation and because upon its demolition, all other resources contributing to the potential district would already have been removed to provide for the remediation program.

(3) Building 18A—Aircraft Division Headquarters Building

Demolition of the nine-story Aircraft Division Headquarters Building is also necessitated by compliance with the mandated remediation program. This property appears ineligible for individual listing on the National Register and California Register and for designation as a City of Long Beach local landmark because it has been extensively modified since it was constructed in 1962. In addition, it is also considered a non-contributor within the potential historic district because it was built after the district's period of significance. The building is, however, eligible for special consideration in the local planning process (5S3). Because this property is not considered a historic resource for the purposes of CEQA under Section 15064.5(a)(2)-(3) of the CEQA Guidelines, its demolition would not pose a significant impact on the environment. Mitigation measures for this property are not required.

[118] *California Resources Code Section 21084.1*

3. CUMULATIVE IMPACTS

The analysis of cumulative impacts on cultural resources involved an evaluation of whether the impacts associated with the proposed project and cumulative development in the area, when taken as a whole, would substantially diminish the number of extant resources within the same or similar context or property type. Specifically, cumulative impacts involve projects affecting nearby resources with the same level or type of designation or evaluation, projects affecting other structures located within the same National Register district, or projects which involve resources that are significant within the same context as resources associated with the PacifiCenter project site.

a. Archaeological Resources

Development of the proposed project, together with other related projects, could contribute to the progressive and irretrievable loss of access to potential archaeological resources. The project's contribution to that loss is difficult to evaluate since the existence and significance of as yet undiscovered artifacts cannot be predicted. Implementation of relevant preservation laws regarding the protection of archaeological resources will reduce the cumulative impact to a less than significant level.

b. Paleontological Resources

Similar to archaeological resources, cumulative development could result in the progressive and irretrievable loss of access to potential paleontological resources, the project's contribution to which cannot be assessed since the existence and significance of as yet undiscovered fossils cannot be predicted. However, implementation of regulations regarding the protection of paleontological resources will reduce cumulative impacts associated with such resources to a less than significant level.

c. Historic Resources

The identified potential historic district on the PacifiCenter project site appears eligible for the National Register, California Register, and local designation. A project or related project will normally result in a significant impact if it impairs the significance of a historic resource through physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings. The demolition of at least 17 of the 18 buildings and features contributing to the identified potential historic district on-site as part of the ongoing mandated soil and groundwater remediation program (Related Project No. 44) will result in a substantial adverse change in the significance of this historical resource.

The site will no longer retain its historic integrity due to the loss of materials, workmanship, feeling, association, design, setting, and location. This change will result in a significant and unavoidable cumulative effect on the environment.

Following demolition throughout much of the project site as part of the remediation program, one structure considered a contributing resource to the potential historic district will remain. Building 15, located within the Boeing Enclave, is subject to the requirements of the remediation program but may potentially be removed as part of the project. To the extent that Building 15 remains and is not removed as part of the remediation program, its removal may occur under the project if operations in the Boeing Enclave cease. Since this building is only historically significant in the context of the historic district (i.e., it would be an isolated, sole remaining element of the identified potential historic district, and it appears ineligible for individual listing in the National Register, California Register, and for local landmark designation), its demolition would not be considered significant as a project impact. This distinction is important as it recognizes the historic value of the collective resources within the identified potential historic district as well as the extent to which the collective resource is reduced due to the remediation program and associated demolition. However, if Building 15 is ultimately removed as part of the project rather than as part of the ongoing remediation program, the project will contribute to a significant, unavoidable cumulative impact on historic resources. Mitigation is recommended.

4. MITIGATION MEASURES

a. Archaeological Resources

CEQA requires that where potential impacts to archaeological resources cannot be avoided, mitigation measures shall be applied. The following mitigation measures are recommended to assure that should any archaeological resources be discovered during either archaeological testing or construction activities, they would not be significantly affected by the implementation of the proposed project.

The proposed mitigation measures are divided into three components. A first measure recommends a professional survey to be conducted once the mandated remediation program and associated demolition activities are completed over the resulting exposed surface. Following this survey, an updated ARS map will be produced to reflect observed conditions. The second measure tests the Archaeological Resources Sensitivity Map through a program of mechanical probing. The last measure prescribes procedures if archaeological resources are discovered during the mechanical probing program. With

these mitigation measures in place, the discovery of any prehistoric and historic archaeological resources, which may exist within the project site following completion of the mandated remediation program and associated demolition is anticipated. In the event contaminated soils are encountered during the implementation of these three components, appropriate measures shall be taken for the cleanup and/or disposal of the soil as set forth in Section IV, Environmental Setting, and V.E., Hazards and Hazardous Materials, including the Risk Management Plan (RMP) and Assessment Confirmation and Expedited Remediation (ACER) Work Plan set forth therein, of this EIR. In addition, the applicant, through the measures set forth in the RMP, will assure that these measures will not interfere with the remedial measures conducted in conformance with Clean-Up and Abatement Order 95-048 by the California Regional Water Quality Control Board—Los Angeles Region. If at any time an archaeological resource is located, the preferred treatment measure will be to avoid the resource. Avoidance of any such discovered resources will be considered feasible and will be implemented as preferred mitigation if the resource is located within a part of the project site designated for open space and which area will not require mass grading in conjunction with surrounding areas. If it is determined that only a portion of the resource will be affected by the project, then mitigation shall be restricted to those parts of the archaeological resource that would be damaged or destroyed.

Pedestrian Survey and Refinement to the ARS Map

V.C-1 The permitted demolition activities associated with the remediation program cover approximately 80 percent of the Boeing C-1 Facility. Once this area has been cleared of buildings and asphalt, an opportunity exists to refine the ARS map. Many of the assumptions regarding modern impacts will either be validated or dismissed. The geology of the facility will also become clearer. Recording this new data is paramount to discovery efforts.

A pedestrian survey shall be conducted across surfaces exposed during the remediation program. The survey team would include a geoarchaeologist and several archaeologists. Documentation of disturbances and geology would be made when relevant. If remediation of soil occurred, there is the potential to evaluate stratigraphic data. All data gathered during the survey would be incorporated into the refined ARS map. If areas within the remediation program can be determined to have less potential to contain archaeological resources, then testing efforts can be focused elsewhere.

Monitoring Phase: After completion of demolition

Enforcement Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Monitoring Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Action Indicating Compliance: Preparation of a refined ARS Map

Testing Program

V.C-2 The recommended testing program involves the systematic placement of mechanical probes across the project site prior to any new construction. Backhoe trenches will be used as the primary method of probing. Trenches will be placed in areas that are clear of utility lines and where the probability of relatively shallow (less than 5 feet) archaeological deposits is indicated by the Archaeological Resources Sensitivity (ARS) Map. Alternate means of mechanical probing will be initiated only if backhoe trenching is deemed ineffective for a particular area. In these instances, continuous cores and/or auger cores will be used.

Table 20 on page 314 contains the percentage of area covered by each Sensitivity Class on the ARS map and the maximum number of probes proposed in the testing program. Only a handful of mechanical probes shall be placed in Sensitivity Class I areas, where the probability of encountering an intact archaeological deposit is quite low. These areas are highly disturbed and the presence of utility lines and other infrastructure dictate a cautious approach. This class accounts for roughly 11 percent of the entire project site. The majority of the project site, 74 percent, is classified as either Sensitivity Class II or III. Subsurface probes placed in these areas will assess the actual impacts from past construction activities and could result in their reclassification into a lower sensitivity class. Placement of the trenches will depend on particular stratigraphic data encountered, but it is expected that no less than one trench for every five acres will be required. This results in a total of roughly 40 trenches. The highest density of subsurface test probes will be placed in Sensitivity Class IV or V areas, where ten trenches will be placed in each class respectively.

Monitoring Phase: Pre-Construction (throughout testing program)

Enforcement Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Table 20

PROPOSED TESTING PROGRAM

Sensitivity Class	Percentage of Project Site	Maximum Number of Probes
I	10.9	5
II and III	74.1	40
IV	11.6	10
V	3.5	10

Monitoring Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Action Indicating Compliance: Issuance of summary report with findings submitted to the cities of Long Beach and Lakewood

Data Recovery Program

V.C-3 If an archaeological resource is found during the mechanical probing program, a determination will be made regarding whether the resource can be avoided by the proposed development. If not, data recovery measures will commence. In this section, data recovery measures are specified for various types of archaeological resources to account for variability in site size, density and character.

Should an archaeological resource be discovered, it will go through a three-phase data recovery program of fieldwork followed by laboratory analysis and reporting. The first phase of fieldwork will involve the definition of the archaeological site boundary and an evaluation of site integrity.

The objective of this phase is the characterization of the archaeological deposit, which will be accomplished through the hand excavation of a small number of test units. The second phase involves the mechanical excavation of the entire deposit area that will be impacted by construction activities. The careful removal of the site will allow archaeologists to recover important scientific information on formation processes and site function and to detect cultural features. The third phase of fieldwork will ensue if features are identified. All features will be hand excavated in their entirety. Fieldwork will be followed by analysis of the recovered materials, the preparation of a technical report, and curation of all project-related materials.

Phase 1: Site Characterization

Should an archaeological resource be encountered, it will be subjected to site boundary definition. This measure entails an assessment of the resource at the time of discovery. Site boundary definition may require the excavation of backhoe trenches to trace out the subsurface extent of the discovered resource. A backhoe will be used to remove fill and to excavate a series of trenches through the site area. The purpose of the trenches is to define the horizontal and vertical extent of the site and to identify any potential subsurface features. A geoarchaeologist will also inspect the resource and the surrounding sediments to determine whether or not it is in situ. If the discovery is determined to be an archaeological resource, then data recovery measures will be enacted.

Archaeological resources can be divided into two broad categories; prehistoric and historic. Examples of archaeological resources are presented along with the projected Phase 1 level of mitigation effort. All examples assume that project-related activities would not allow the resource to be preserved in place and that damage to the entire resource may be expected.

Prehistoric Sites

Prehistoric archaeological resources common to the Los Angeles Basin include habitations, special activity sites, artifact scatters, and isolated features.

Habitations. In the Long Beach area, habitation sites consist of accretional midden deposits. These deposits are often composed of organic remains including vertebrate and invertebrate fauna as well as stone and shell artifacts. Features found in these middens may include hearths, storage pits, piles of fire-affected rock, and burials.

During Phase 1 data recovery of habitation sites, hand excavation of a sample of test units shall occur. In all cases, at least four test units will be excavated, with the maximum number of units not to exceed 10 percent of the area within the archaeological site boundaries. Excavation units will be placed according to trench profiles created during site boundary definition. Test units will be 1-by-1-m in size and excavated stratigraphically where possible. If natural or cultural strata are not evident, units will be excavated in arbitrary 10-cm levels. All materials will be screened through ?-inch mesh hardware cloth and collected separately. Photographs will be taken of selected units, and profiles will

be drawn of each unit. Appropriate paperwork will be filled out during the excavation to accurately track all artifacts, samples, and soil removed from the site. Geoarchaeological documentation will include description of soils and stratigraphy.

Special Activity Sites. Special-activity middens are typically food-processing locales that are rich with marine shell and lithic materials. These sites are less likely to contain features and rarely contain burials. Because of the homogenous nature of these sites, less excavation effort will be necessary to characterize the deposit.

At least two test units at each special-activity site shall be excavated, with the maximum number of test units not to exceed 5 percent of the site's defined area. These units will provide sufficient data to address regional research issues. Excavation will proceed as outlined above.

Artifact Scatters and Isolated Features. Artifact scatters is a category of site that includes numerous functions and manifestations. A flaked stone chipping station or a closely associated set of manos and metates would qualify as an artifact scatter. Artifact scatters are often difficult to identify during trenching or grading activities because their archaeological signature does not necessarily contain a discoloration of the soil. Isolated features are also difficult to identify during trenching and grading. Small hearths and roasting pits, for example, often go undetected because of their small size.

For artifact scatters, a sample of two test units at each site shall be hand excavated, with the maximum number of test units not to exceed 5 percent of the total site area. All isolated features encountered will be excavated in their entirety. Excavation will proceed as outlined above.

Historical-Period Sites

Types of historical-period archaeological resources include trash scatters, wells, privies, foundations, and water control features. Based on early 20th century photos, the project vicinity was used as pasture or grazing land. As such, the remnants of wells, fence lines, watering troughs, and the like that may have been associated with such agrarian activities may be encountered.

In the event that a historical-period feature is encountered, intact portions shall be defined and a sample of associated artifacts from undisturbed

contexts shall be excavated. In the event that features such as privies or wells are encountered, at least half of the undisturbed deposit will be hand excavated according to the methods outlined below (see Phase 3: Feature Excavation). For features that have no associated artifacts, such as fence posts, wall remnants, and water troughs, the feature shall be documented through photographs, notes, and drawings.

Historical-period trash scatters may also occur on the project site. After the area of any encountered trash scatter has been defined, at least two test pits will be manually excavated, with the hand-excavated sample not to exceed 5 percent of the site area.

Phase 2: Mechanical Excavation

Once an archaeological site has been adequately characterized through the hand excavation of test pits, that portion of the site that will be destroyed by construction activities will be mechanically excavated. Using a tracked backhoe or similar equipment fitted with a flat blade, the archaeological deposit will be removed in 10-cm levels. The operation will be monitored by a professional archaeologist. Selected portions of the removed fill will be screened through ?-inch mesh hardware cloth; provenience of the screen material will be set to the site grid and elevation. Features, occupational surfaces, and activity areas will be flagged. Mechanical operations will cease at this point, and hand excavation will ensue (see below). Upon completion of feature excavation, mechanical excavation will resume in an attempt to discover additional features. Mechanical excavations will cease at the base of the archaeological deposit.

Phase 3: Feature Excavation

In the event that archaeological features, such as hearths, roasting pits, or house floors, are discovered, archaeologists will excavate them in their entirety. Smaller features may be bisected and excavated in two halves; larger features may be quartered. Additionally, areas surrounding features will be excavated to ensure that data from related activity areas are collected. In the event that occupational surfaces are identified, the surface will be gridded and excavated in its entirety.

Excavated fill will be screened through ?-inch mesh hardware cloth. Paleobotanical and chronometric samples will be collected from appropriate contexts. All excavated features will be documented thoroughly with photographs, profiles, plan maps, and field notes.

Provisions for the treatment of human remains in the event that they are discovered are detailed below.

Lab Sorting and Analysis

After completion of excavations of an archaeological resource, materials collected will be transported to a qualified archaeological laboratory. Maintaining data integrity and information retrieval are primary goals of laboratory analysis. Toward this end, computerized inventories of artifacts and samples, provenience information, and storage boxes are maintained. Artifacts are generally cleaned and processed to the extent that attributes can be observed and recorded, without damaging the artifacts. Archival-quality storage materials are used for artifacts, photographs, and slides. Following processing and cataloging, materials are rebagged and checked out to the analysts for study.

Analysts will carry out intensive analysis of artifacts and samples recovered during the excavation. This includes lithic, faunal, pollen, phytolith, macrofossil, historical-period artifact, and chronometric analyses.

Report Preparation

A professional report will be issued detailing the findings of archaeological data recovery. The report will consist of a project background, description of field methods, results of archaeological investigations, a geomorphological evaluation, and management recommendations. All artifacts recovered from testing will be identified and analyzed, and appropriate chapters containing this information will also appear in the report. All project-related materials will be curated at a repository meeting the state standards.

Monitoring Phase: Pre-Construction (throughout testing program)

Enforcement Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Monitoring Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Action Indicating Compliance: Issuance of summary report with findings to the Cities of Long Beach and Lakewood

Discovery of Native American Remains and Funerary Items

V.C-4 In the event that human bone and associated funerary items are uncovered during the course of the field investigations, the following protocol will be followed per State CEQA Guidelines §15064.5(e):

1. All work in the area will be halted.

2. The Los Angeles County Coroner will be contacted in accordance with Section 7050.5(b) of the California Health and Safety Code.

3. A representative from the coroner's office will come to the site and determine whether the remains are subject to the provisions of Section 27491 of the California Government Code or other related provisions of law concerning investigation of the circumstances, manner, and cause of death, as required by Section 7050.5(b) of the California Health and Safety Code. The coroner will make this determination within two working days of notification.

4. If the coroner determines that the remains are those of a Native American, Section 7050.5(b) of the California Health and Safety Code requires that the coroner contact the Native American Heritage Commission by telephone, at (916) 653-4082, within 24 hours.

5. The Native American Heritage Commission will proceed to contact the most likely descendant (MLD) and will coordinate the final disposition of the remains with the most appropriate local Native American representative, according to the provisions of Section 5097.98 of the California Public Resources Code.

6. Copies of all correspondence regarding the discovery of human remains will be included as a confidential appendix of the data recovery excavation report, to be provided to all parties but not circulated for public review.

Monitoring Phase: Pre-Construction (throughout testing program) and Construction

Enforcement Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Monitoring Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Action Indicating Compliance: If remains are encountered, preparation of the data recovery excavation report

Accidental Discovery

V.C-5 If archeological resources of any nature should be accidentally encountered during construction activity on the project site, work shall be temporarily suspended in the immediate area of the discovery. In such case, a qualified archaeologist shall be called in to evaluate the find and to determine if it is unique as defined in Public Resources Code Section 21083.2(g). Should the find be determined to be unique, a mitigation plan specifying data recovery shall be defined and implemented. Construction may be reconvened in any area determined by the archaeologist not to adversely affect the unique archeological resources accidentally discovered.

Monitoring Phase: Construction

Enforcement Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Monitoring Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Action Indicating Compliance: If remains are encountered, preparation of written report by archaeologist

b. Paleontological Resources

V.C-6 If unknown paleontological resources are discovered during any grading or construction activity, work will stop in the immediate area. Upon such discoveries a qualified paleontologist shall be consulted to determine the discovery's significance and, if necessary, formulate a mitigation plan,

including avoidance alternatives, if feasible, to mitigate impacts. Work can only resume in that area with the approval of the project paleontologist. The paleontologist shall be selected from a list of qualified paleontologists maintained by the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County.

Monitoring Phase: Pre-Construction (throughout testing program) and Construction

Enforcement Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Monitoring Agency: City of Long Beach Planning and Building Department and City of Lakewood Community Development Department

Action Indicating Compliance: If remains are encountered, preparation of written approval from paleontologist

c. Historic Resources

Although impacts on historic resources attributable to the PacifiCenter Project, itself, would not be significant and do not require mitigation in and of themselves, the Project's impacts do contribute adversely to already significant cumulative impacts caused by the mandated remediation program and do require mitigation. The following mitigation measures are recommended to reduce the PacifiCenter's contribution to significant cumulative impacts to an identified potential historic district on-site, all but two of the contributing structures and features (i.e., Building 15 and underground features) of which will be removed by permitted demolition activities necessitated by compliance with the mandated remediation program:

Recordation

V.C-7 Prior to the demolition of structures and features contributing to the potential historic district in compliance with the mandated remediation program, a Historic American Building Survey (HABS) Level II recordation document shall be prepared. This report shall document the history of each building within the historic district and their physical conditions, both historic and current, through site plans, historic maps and photographs, current photographs, written data, and text. The document shall include:

a. Written text documenting the history and architectural and engineering features of the property. This text should include a contextual history of Douglas Aircraft and its significant role in American aviation and World War II, as well as its history in Long Beach and southern California. Biographical information regarding Donald Douglas and the Taylor Brothers (Edward Cray and Ellis Wing), the principal architects of the facility, should also be included. Published references related to the construction of the facility, the activities of the Douglas Aircraft Company, Long Beach Plant during the district's period of significance, and other bibliographic sources should be included as well.

b. Photographic documentation noting all exterior elevations and primary interior features. Photographs should be large format, black and white, archivally processed, taken by a professional photographer familiar with the recordation of historic buildings, and prepared in a format consistent with HABS guidelines and standards. Views shall include several contextual views, all exterior elevations, detailed views of significant exterior architectural/historical features, and interior views of significant historical/architectural features or spaces (if any).

c. Photographic copies or original prints (per HABS guidelines) of historical photographs should also be included in the HABS document.

d. A sketch floor plan on 8½" x 11" paper shall accompany each building documented.

e. Archival originals of the recordation document shall be submitted to the National Park Service for submission to the Library of Congress.

f. Archival copies of the recordation document shall be submitted to the California Office of Historic Preservation, the City of Long Beach Planning Division (the City's Neighborhood Preservation Officer), City of Long Beach Main Public Library, the Long Beach Heritage, the Historical Society of Long Beach, and the Boeing Company Historical Archives-Cerritos location.

Monitoring Phase: Prior to demolition of structures and features that contribute to the potential historic district

Enforcement Agency: City of Long Beach Planning and Building Department

Monitoring Agency: City of Long Beach Planning and Building Department

Action Indicating Compliance: Completion and submittal of HABS Level II recordation document to named agencies

Educational and Interpretative Programs

V.C-8 To assist the public in understanding the history of the Long Beach facility, an on-site interpretive program display or other photographic and textual representation shall be created and shall be available to the general public. This educational program should include information specific to the facility's contribution to the history of the aviation industry in southern California, the war (World War II) effort and the movement to use women workers on the Home Front (Rosie the Riveter), and in the development and substantial growth of the Long Beach and Lakewood areas. Such interpretive programs may be in the form of commemorative signage and/or plaques; historical photographs; models; and/or published information such as brochures, videos, electronic media, etc. Materials such as those in the interpretive exhibit currently displayed at the Boeing Long Beach facility in the Boeing Realty Company Visitor's Center (Building 1) could be used to satisfy this mitigation measure, incorporated on-site into the overall design of the proposed project, and maintained regularly.

Monitoring Phase: Operation

Enforcement Agency: City of Long Beach Planning and Building Department

Monitoring Agency: City of Long Beach Planning and Building Department

Action Indicating Compliance: Implementation of education program and preparation of bi-annual reports by the Applicant

5. SIGNIFICANCE AFTER MITIGATION

a. Archaeological Resources

Because the project will comply with the proposed mitigation measures, potential impacts to archaeological resources are considered mitigated to below a level of significance.

b. Paleontological Resources

Compliance with the proposed mitigation measure pertaining to paleontological resources will ensure that potential impacts to paleontological resources will be less than significant.

c. Historic Resources

Under CEQA the mitigation measures would reduce but would not eliminate the PacifiCenter project's contribution to significant cumulative impacts to the potential historic resources. Demolition of all but one contributing building within the potential historic district in compliance with the remediation program, a related project, would result in the irretrievable loss of the district thereby resulting in a significant adverse cumulative change to the environment. The process of demolition of 17 of the 18 contributing buildings and two other features that define the potential historic district on the State level is considered a significant impact in accordance with Sections 21098.1 and 5020.1(q) of the Public Resources Code and cannot be mitigated to a less than significant level. Should demolition of Building 15 not be required for the remediation program, the PacifiCenter project impact due to demolition of Building 15, the last remaining contributing structure to the potential historic district following demolition necessitated by the remediation program, would not be a significant project impact since this building does not appear to be eligible for the National Register, the California Register or local landmark designation. This project impact does, however, contribute to an already significant cumulative impact.

The mitigation measures outlined for documentation of the resource and its significant character-defining features are important to assure that information regarding the historic district's contribution to the history of the city, region, and nation is retained. Even with the recommended mitigation measures, cumulative impacts on this historic resource would be considered significant and unavoidable.